

# PATENT ABSTRACTS OF JAPAN

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## (54) MESSAGE REGISTRATION SYSTEM OF TELEPHONE SET

### (57)Abstract:

PURPOSE: To spread and improve service ability by registering an extension number of a telephone set desired for callback when a called party is absent.

CONSTITUTION: When a caller calls a called party but the called party does not replay, the extension number of a multi-function telephone set 7 desiring callback is depressed by using a number button of a multi-function telephone set 6, then a message registration to a storage device 4 at the caller side is transmitted to a central processing unit 1 to stop the call from the telephone set 6 to the telephone set 8. The controller 2 lights a lamp accessoried to a message registration button 14 to the telephone set 8 and the extension number and time of the telephone set 7 are registered in the recorder 5 corresponding to the telephone set 8. The called party knows the incoming call during its absence by the lighting of the lamp and depresses a message registration button 14 and the extension number and time of the telephone set are displayed on a numeral display section 13.

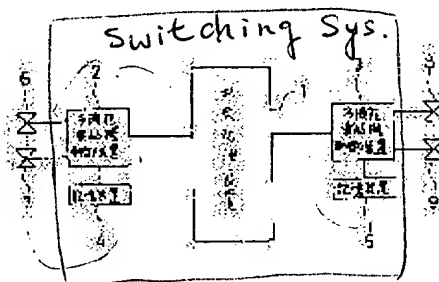


Fig. 1

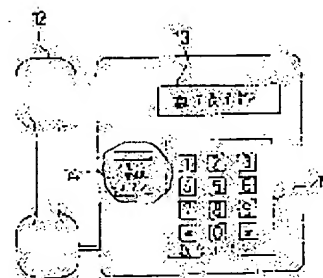


Fig. 2

## LEGAL STATUS

[Date of request for examination]

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[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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特開昭61-184031 (2)

発呼者が被呼者を呼び出す時に、被呼側が不着であった場合、発呼側の多機能電話機のメッセージ登録ボタンを押下げることにより、被呼側の多機能電話機のメッセージ登録ボタンに備えられたランプを点燈させ、自動的に発呼側の電話機の内部番号を被呼側の記憶装置に登録させるという使い方が一般的であった。

( 発明が解決しようとする問題点 )

上述した従来の電話機のメッセージ登録方式においては、発呼者が被呼者を呼出すときに被呼者が不応答であつた場合、被呼者が呼返すことのできる電話機は登録を行なつた発呼側の電話機に限定されるため、発呼者はメッセージ登録を行なうとその電話機から離れることができないという問題があつた。

本発明の目的は、上記問題を解決し、メッセージ登録者（発呼者）が呼返してもらいたい任意の電話機の内線番号を自由に登録できるようにした電話機のメッセージ登録方式を提供することにある。

のメッセージ登録ボタンを押下げ、数字表示部に、発呼者が登録した上述の呼返してもらいたい宛呼何の多機能電話機の内線番号を表示させる。

このメッセージ登録方式は、発呼側の多機能電話機に代わり、一般電話機を使用することができる。この場合には、メッセージ登録ボタンを押下げる操作の代わりに、フツキング、および特番のダイヤル操作または押下げ操作が行われる。

このメッセージ登録方式によれば、発呼者が電話機から手機前電話機を呼出するときに被呼者が不在であった場合、発呼者は呼返してもらいたい電話機の内線番号を自由に登録することができる。

( 实 施 例 )

以下、本発明の実施例について、図面を参照して説明する。

第1図は、本発明による電送機のメッセージ登録方式の一実施例を適用する自動交換システムの一般成例を示した図である。中央処理装置1を介して多機能電話機の制御装置2、3が接続されており、多機能電話機の制御装置2、3のそれぞれ

(問題点を解決するための手段)

本発明による電話機のメッセージ登録方式は、  
 郵便系と、これを介して接続される。それぞれ数  
 字ボタン、メッセージ登録ボタン、数字表示部お  
 よび可視表示手段を備えた複数の発呼側の多機能  
 電話機および被呼側の多機能電話機と、発呼側お  
 よび被呼側の多機能電話機のそれぞれに対応した  
 記憶装置とで構成され、

発呼者が被呼者を呼出す時に被呼者が不在等の場合、発呼者がメッセージ登録ボタンを押下げる操作に続いて、呼返してもらいたい上述の発呼側の任意の多機能電話機の内線番号に対応して上述の数字ボタンを押下げると、

上述の制御系が、発呼者が呼出している被呼側の多機能電話機に付属の可視表示手段を作動させ、さらにこの被呼側の電話機に対応の記憶装置に上述した呼着してもらいたい発呼側の多機能電話機の内線番号を登録し、

被呼者が上述の可視表示手段の作動により着信のあつたことを知るとこの被呼側の多機能電話機

には、記憶装置 4 と多機能電話機 6, 7、記憶装置 5 と多機能電話機 8, 9 が接続されている。

第2図は、上記システムに付随する多機能電話機6, 7, 8, 9の一構成例を示した図である。多機能電話機は、送受話機12と数字表示部13とランプ付のメツセージ登録ボタン14と数字ボタン15を備えている。

次に、第 1 図および第 2 図を併用しながら、メッセージ符号化方法について説明する。

まず、発呼側の多機能電話機 6 において、被呼側の多機能電話機 8 を呼び出すために、発呼者は送受話筒 12 を持ち上げ、オフフック状態にし、数字ボタン 15 により被呼側の多機能電話機 8 の内線番号を押下げる。この時、被呼側の多機能電話機 8 が不在等の場合、発呼側の多機能電話機 6 によって以下の差込メッセージ表示が行なわれる。

発呼者は発呼側の多機能電話機 8 が被呼側の多機能電話機 8 を呼び出している状態で、ランプ付のメッセージ登録ボタン 14 を押下げる。発呼側の制御回路 2 は中央処理回路 1 に電話機 6 のメ

after  
last  
phone

特開昭61-184031 (3)

セージ登録ボタン14が押下げられたことを伝える。ここでさらに発呼者は発呼側の多機能電話機6の数字ボタン15によつて呼び返してもらいたい多機能電話機7の内線番号を押下げる。その結果、制御装置2は多機能電話機7の内線番号がその時点の時刻と共に発呼側の記憶装置4にメッセージ登録されたことを中央処理装置1に伝え、多機能電話機6から多機能電話機8への呼出しを停止する。さらに、制御装置2は発呼側の多機能電話機6に対してサービス設定トーンを送出し、サービスの設定が完了したことを発呼者に伝える。このとき発呼者は受話機12をオンフック状態にする。

一方、制御装置 2 は被呼側の多機能電話機 8 に対しては、メッセージ登録ボタン 14 に付属のランプを点灯させ、さらに発呼側の記憶装置 4 にメッセージ登録された多機能電話機 7 の内線番号と時刻を被呼側の多機能電話機 8 対応の記憶装置 5 に登録する。

被呼者はメッセージ登録ボタン付風のランプが

ツメージ登録方式は、発呼者が被呼者を呼出すときにその被呼者が応答で応じた場合、発呼者が呼返してもらいたい任意の電話番号の内線番号を自由に登録することができ、従つて、サービスの拡充を図ることができる効果がある。

#### 4. 図面の簡単な説明

第1図は、本発明による電話機のメッセージ登録方式の一実施例を適用する自動交換システムの一構成例を示した図、第2図は第1図に示した自動交換システムに付随する多機能電話機の一構成例を示した図である。

- 4, 5 … 記憶装置  
6, 7, 8, 9 … 多機能電話機  
13 … 数字表示部  
14 … (ランプ付の) メッセージ登録ボタン  
15 … 数字ボタン。

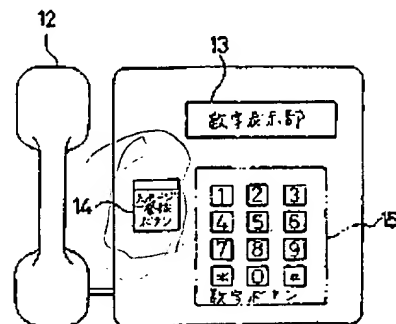
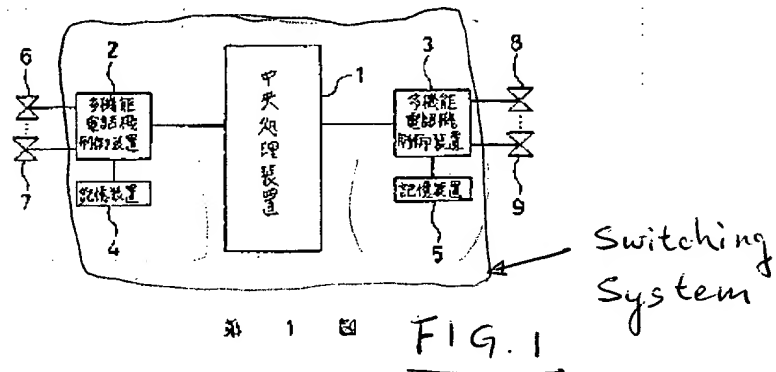
特許出願人 日本 雄 氣 株 式 會 社  
代理人 弁 理 士 西 原 啓

点燈していることにより、不在中に着信のあつたことを知る。被呼者が電話機 8 のメッセージ登録ボタン 14 を押下げると、中央処理装置 1 は、被呼側の制御装置 3 を介して記憶装置 5 に登録されている呼び出すべき電話機 7 の内線番号および時刻、すなわち着信時刻を被呼側電話機 8 の数字表示部 13 に表示させる。これにより被呼者は、メッセージ登録者、すなわち発呼者が呼び返してもらいたい多機能電話機 7 の内線番号と着信のあつた時刻を知り、この内線番号を呼び出すことが可能となる。

なお、本実施例では多機能電話機間の呼び出しに限って説明したが、メッセージ登録を行なう側、すなわち発呼側の電話機は一般電話機でも可能である。この場合メッセージ登録は、メッセージ登録ボタンを押下げる操作ではなく、フツキング及び特番をダイヤルする操作により実現されることは言うまでもない。

〔 寤 明 の 効 果 〕

以上説明したように、本発明による電話機のメ



第 2 章

Japanese Kokai Patent Publication S61-184031, published August 16, 1986; Application No. S60-22855, filed February 8, 1985; Inventor: Wakako NUMAKURA; Assignee: Nippon Denki KK (NEC Corporation)

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## MESSAGE RECORDING METHOD FOR A TELEPHONE SET

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### 2. Claims

#### [Claim 1]

Message recording method for a telephone set characterized in that it is comprised of a control system; multiple caller multifunction telephone sets and multiple called party multifunction telephone sets provided with number buttons, a message recording button, a numerical display element, and a visible display means connected through [the control system]; and storage devices corresponding to said caller and called party multifunction telephone sets; when the caller calls the called party and there is no answer, after the caller performs the operation of pushing a message recording button, when the aforementioned number corresponding to the extension number of an optional multifunction telephone set of the aforementioned caller who wishes to have a call returned is pressed, the aforementioned control system causes the aforementioned visible display means attached to the multifunction telephone set of the called party whom the caller calling to operate; additionally, the extension number of the multifunction telephone set of the aforementioned caller who wishes to have a call returned is recorded on the aforementioned storage device corresponding to the telephone set of said called party; when the called party learns that there is a received message by operating the aforementioned visible display means, the message recording button of the multifunction

telephone set of called party is pushed, and the extension number of the multifunction telephone set of the aforementioned caller who wishes to have a call returned, which is recorded by the caller, is displayed.

[Claim 2]

The message recording method for a telephone set listed in Claim 1 whereby a general telephone set is used in place of the aforementioned multifunction telephone set of the caller.

[Claim 3]

The message recording method for a telephone set listed in Claim 2 whereby pressing on the telephone hook, or dialing or pushing a special number is carried out in place of pushing the aforementioned message recording button.

3. Detailed Explanation of the Invention

[Field of Use in Industry]

The present invention concerns a telephone set in an automatic switching system; in particular, it concerns a message recording method of a multifunction telephone set.

[Prior Art Technology]

With conventional message recording methods of multifunction telephone sets, when the caller called a called party, when the called party was not available, the method generally used has been one whereby a lamp provided on the message recording button of the multifunction telephone set of the called party is lit, and the extension number of the telephone set of the caller is automatically recorded in a storage device of the called party.

[Problems the Invention is Meant to Resolve]

With the aforementioned conventional message recording method for a telephone set, when the called party does not answer on being called by the caller, because the telephone set where the called party could return a call was limited to the telephone set of the caller where recording was carried out, there was the problem that the caller could not be separated from the telephone set when the recording of a message was carried out.

The objective of the present invention is to resolve the aforementioned problems and to offer a message recording method for a telephone set that enables the recorder of a message (caller) to record the extension number freely of a telephone number from which a return call is desired.

[Means for Resolving Problems]

The message recording method for a telephone set of the present invention is comprised of a control system; multiple caller multifunction telephone sets and multiple called party multifunction telephone sets provided with number buttons, a message recording button, a numerical display element, and a visible display means connected through [the control system]; and storage devices corresponding to said caller and called party multifunction telephone sets; when the caller calls the called party and there is no answer, after the caller performs the operation of pushing a message recording button, when the aforementioned number corresponding to the extension number of an optional multifunction telephone set of the aforementioned caller who wishes to have a call returned is pressed, the aforementioned control system causes the aforementioned visible display means attached to the multifunction telephone set of the called party whom the caller calling to operate; additionally, the extension number of the multifunction telephone set of the aforementioned caller who wishes to have a call returned is recorded.

on the aforementioned storage device corresponding to the telephone set of said called party; when the called party learns that there is a received message by operating the aforementioned visible display means, the message recording button of the multifunction telephone set of called party is pushed, and the extension number of the multifunction telephone set of the aforementioned caller who wishes to have a call returned, which is recorded by the caller, is displayed.

With this message recording method for a telephone set, a general telephone set may be used in place of the aforementioned multifunction telephone set of the caller. In this case, pressing on the telephone hook, or dialing or pushing a special number is carried out in place of pushing the aforementioned message recording button.

Based on this message recording method, if a called party is not available when a caller calls a multifunction telephone set from a telephone set, the caller can freely record the extension number of the telephone set for which a return call is desired.

[Embodiment]

Below, an embodiment of the present invention is explained with reference to the drawings.

Figure 1 is a diagram showing a structural example of an automatic switching system applying an embodiment of the message recording method for a telephone set based on the present invention. Control devices (2, 3) of a multifunction telephone set are connected through a central processing unit (1), and on the respective control devices (2, 3) of a multifunction telephone set, a storage device (4), multifunction telephone sets (6, 7), a storage device (5), and multifunction telephone sets (8, 9) are connected.



Figure 2 is a diagram showing a structural example of the multifunction telephone sets (6, 7, 8, 9) attached to the aforementioned system. The multifunction telephone sets are provided with a handset (12), a numerical display element (13), a message recording button (14) with an attached lamp, and number buttons (15).

The message recording method will subsequently be explained making use of both Figure 1 and Figure 2.

First, on the multifunction telephone set (6) of the caller, in order to call the multifunction telephone set (8) of a called party, the caller lifts the handset (12), and in an off-hook state, the extension number of the multifunction telephone set (8) of the called party is pushed by means of the number buttons (15). At this time, if there is no answer on the multifunction telephone set (8) of the called party, message recording is carried out in the following manner by means of the multifunction telephone set (6) of the caller.

In a state whereby the caller's multifunction telephone set (6) is used by the caller to call the called party's multifunction telephone set (8), the message recording button (14) with a lamp is pushed. The caller's control device (2) transmits the fact that the message recording button (14) of the telephone set (6) has been pushed to the central processing unit (1). Then, the caller pushes the extension number of the multifunction telephone set (7) to which a return call is desired by means of the number buttons (15) of the caller's multifunction telephone set (6). As a result, the control device (2) transmits the fact that a message regarding the extension number of the multifunction telephone set (7) has been recorded to the caller's storage device (4) along with the time, and the call from the multifunction telephone set (6) to the multifunction telephone set (8) is stopped. Additionally, the control device (2) sends a service setting tone to the caller's

multifunction telephone set (6), and transmits the fact that the service setting is complete.

At this time, the caller places the handset (12) in an on-hook state.

The control device (2) causes the lamp attached to the message recording button (14) to light on the called party's multifunction telephone set (8), and records the extension number of the multifunction telephone set (7) which records a message to the caller's storage device (4); additionally, the extension number of the multifunction telephone set (7) and time recorded on the caller's storage device (4) are recorded onto the storage device (5) corresponding to the called party's the multifunction telephone set (8).

The called party learns that there has been an incoming message while he was unavailable by the lighting of the lamp attached to the message recording button. When the called party pushes the message recording button (14) of the telephone set (8), the central processing unit (1) displays the extension number of the telephone set (7) to be called and the time; i.e., the incoming message time, on the numerical display element (13) of the called party's telephone set (8). Based on this, the called party learns the extension of the multifunction telephone set (7) to which a return call is desired and the time at which the call was received, and the extension number can be called.

With the present embodiment, the explanation was limited to calling between multifunction telephone sets, but the party undertaking the recording of a message; i.e., the caller, may also use a general telephone set. In this case, it goes without saying that this may be realized by pressing on the telephone hook, or dialing or pushing a special number is carried out in place of the operation of pushing the message recording button.

[Results of the Invention]

As has been explained above, when a caller calls a called party and the called party does not answer, the extension number of an optional telephone set to which the caller desires a return call can automatically be recorded; thus, the result is that the expansion of service can be achieved.

#### 4. Simple Explanation of the Drawings

Figure 1 is a diagram showing a structural example of an automatic switching system applying an embodiment of the message recording method for a telephone set based on the present invention. Figure 2 is a diagram showing a structural example of the multifunctional telephone sets attached to the automatic switching system shown in Figure 1.

4, 5: storage devices

6, 7, 8, 9: multifunctional telephone sets

13: numerical display element

14: message recording button (with an attached lamp)

15: number buttons

Translations Branch  
United States Patent and Trademark Office  
October 3, 2002  
Steven M. Spar